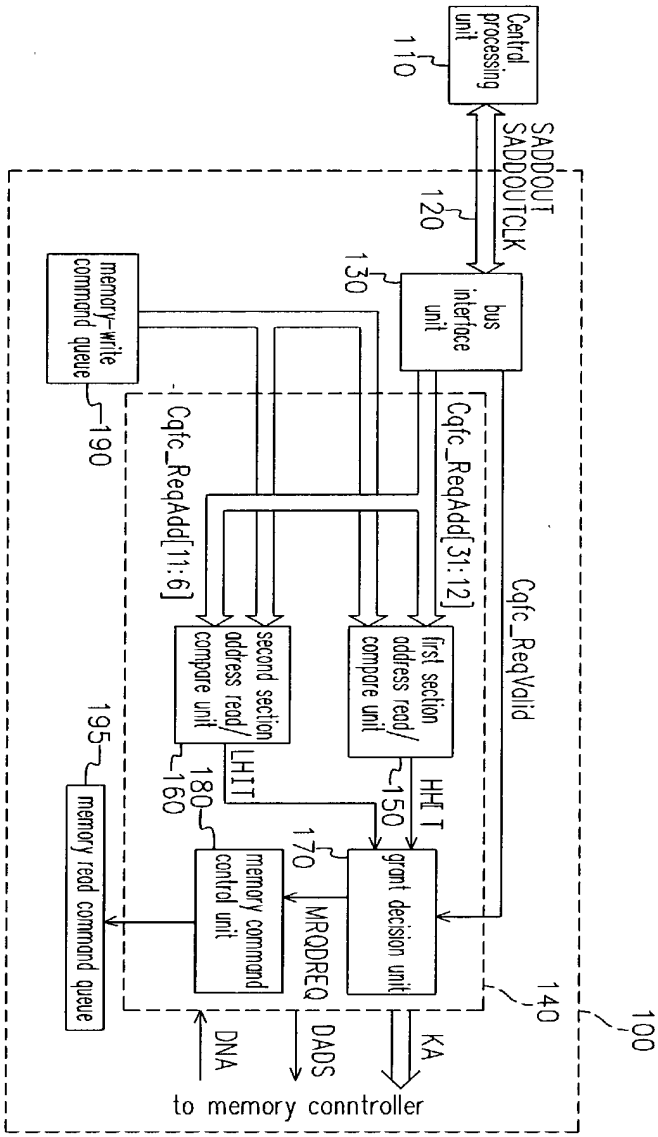
Central processing unit
110
SADDOUT
SADDOUTCLK
120
130
bus interface unit
memory-write command queue
190
Cqfc_ReqAdd[31:12]
Cqfc_ReqValid
Cqfc_ReqAdd[11:6]
second section address read/ compare unit
first section address read/ compare unit
195
LHIT
180
160
HHIT
150
170
memory command control unit
MRQDREQ
grant decision unit
140
100
memory read command queue
DNA
DADS
KA
to memory conntroller

FIG.

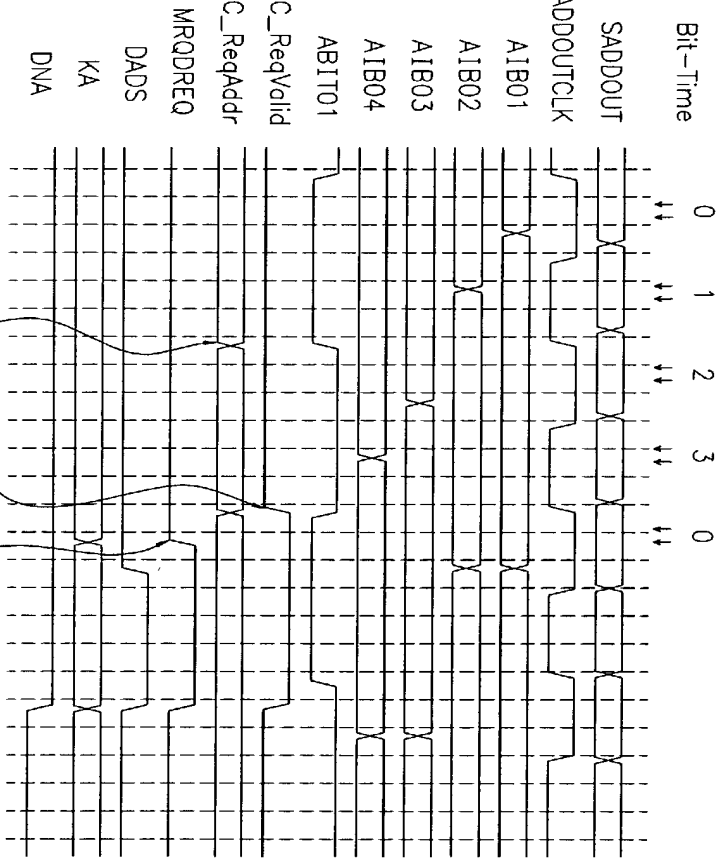
Bit-Time
SADDOUT
SADDOUTCLK
AIB01
AIB02
AIB03
AIB04
ABIT01
CqfC_ReqValid
CqfC_ReqAddr
MRQDREQ
DADS
KA
DNA
0
1
2
3
0
310
330
320

FIG. 2

Bit Times	SADDOUT[14:2] #												
	14	13	12	11	10	9	8	7	6	5	4	3	2
0	M1	Command[4:0]					PA[31:25]						
1	PA[24:12]												
2	M2	Mask[7:0]								CH	ID[2:0]		
3	RV	PA[34:32]			PA[11:3]								

FIG. 3

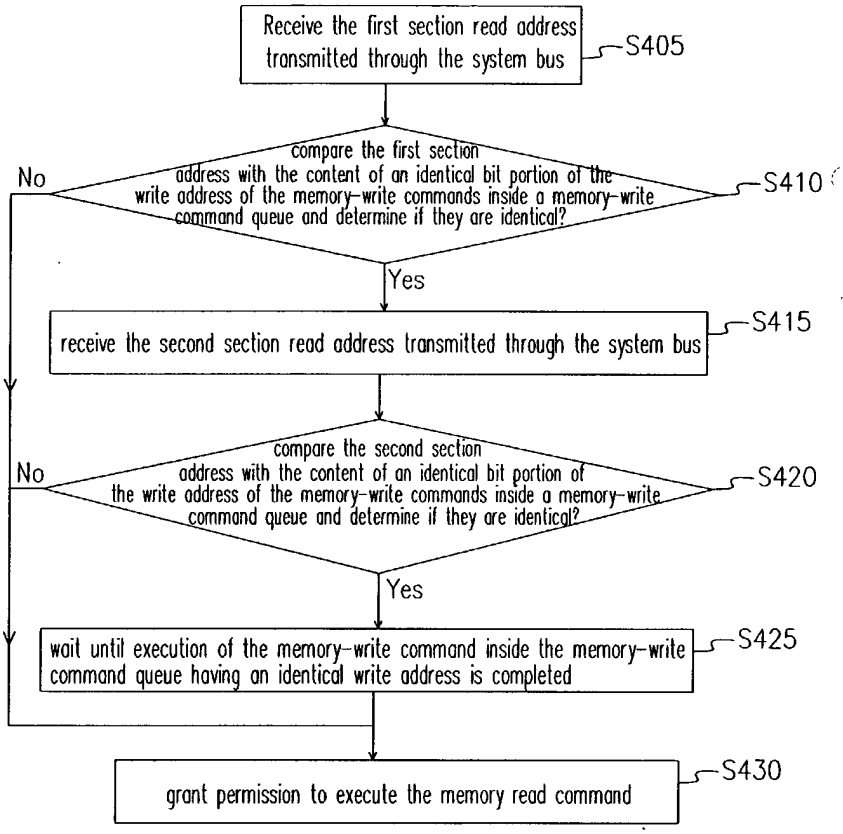
Receive the first section read address transmitted through the system bus
S405
compare the first section address with the content of an identical bit portion of the write address of the memory-write commands inside a memory-write command queue and determine if they are identical?
S410
No
Yes
receive the second section read address transmitted through the system bus
S415
compare the second section address with the content of an identical bit portion of the write address of the memory-write commands inside a memory-write command queue and determine if they are identical?
S420
No
Yes
wait until execution of the memory-write command inside the memory-write command queue having an identical write address is completed
S425
grant permission to execute the memory read command
S430

FIG. 4